

Nuclear Arms Control: Implications from the Crisis in Ukraine

by Dániel Bartha and Anna Péczeli¹



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Printed copies of this paper can be obtained by contacting Mary Di Martino at m.dimartino@ndc.nato.int

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Research Division

NATO Defense College
Via Giorgio Pelosi, 1
00143 Rome – Italy

Jeffrey A. Larsen, PhD, Division Head
website: www.ndc.nato.int
Follow us on Twitter
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The current crisis in Ukraine pushed US-Russia relations to their lowest point since the end of the Cold War, and it also terminated the collaboration between NATO and Russia. After Russia's annexation of Crimea and the infiltrations in Eastern Ukraine, NATO suspended all practical day-to-day cooperation with Moscow (although the Alliance decided to keep the door open for high-level dialogue, and maintained the channels of communication within the NATO-Russia Council as well as the Euro-Atlantic Partnership Council).² Besides these measures by NATO, the G8 also suspended Moscow's membership, the work of the Global Partnership against the Spread of Weapons and Materials of Mass Destruction³ was disrupted, and the 2014 US Compliance Report officially accused Russia of being in violation of its obligations under the Intermediate-Range Nuclear Forces (INF) Treaty. In response, the new Russian military doctrine, adopted in December 2014, named NATO's military buildup as one of the top threats to Russian national security. It also listed "*the creation and deployment of global strategic antiballistic missile systems that undermines the established global stability and balance of power in nuclear missile capabilities, the implementation of the 'prompt strike' concept, intent to deploy weapons in space and deployment of strategic conventional precision weapons*" among the major military threats to the strategic stability between the United States and Russia.⁴

¹ Dániel Bartha is director of the Centre for Euro-Atlantic Integration and Democracy (CEID) – Hungary, and Anna Péczeli is a PhD Candidate and Assistant Lecturer of Corvinus University of Budapest – Hungary. The views expressed are those of the authors and do not necessarily reflect the opinions of the NATO Defense College or the North Atlantic Treaty Organization.

² North Atlantic Treaty Organization, NATO-Russia Council – Last updated on 28 April 2014, http://www.nato.int/cps/ro/natohq/topics_50091.htm (accessed:19-01-2015).

³ The Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP) was initiated by the G8 at its 2002 Kananaskis Summit. It set the goal to raise \$20 billion in the next ten years to prevent terrorists or states that support them from acquiring or developing weapons of mass destruction. From 2002-2012 the GP funded non-proliferation projects worth more than \$21 billion, principally in Russia and the post-Soviet region. The results of the GP include: "1) augmented accounting, control, and physical protection of nuclear and radiological materials; 2) enhanced nuclear, biological, chemical security and safety; 3) destruction of over 20,000 tons of chemical weapons; 4) dismantling of nuclear submarines and safe storage of removed spent fuel; 5) improved detection of nuclear and radiological materials and prevention of illicit trafficking by strengthening border security capabilities; and 6) engagement of scientists, technicians, and engineers with WMD and missile expertise to redirect their efforts toward peaceful purposes." At the 2011 G8 Summit, the GP was extended beyond the original 10-year mandate and it currently has 27 members. U.S. Department of State: The Global Partnership, <http://www.state.gov/documents/organization/185951.pdf> (accessed: 19-01-2015). Nuclear Threat Initiative, Global Partnership Against the Spread of Weapons and Materials of Mass Destruction ("10 Plus 10 Over 10 Program") <http://www.nti.org/treaties-and-regimes/global-partnership-against-spread-weapons-and-materials-mass-destruction-10-plus-10-over-10-program/> (accessed: 19-01-2015)



In terms of nuclear arms control, the most important consequences of the crisis in Ukraine are the dramatically worsened relations between Washington and Moscow, the loss of trust, and the hostile environment which poisons the chances of cooperation. These circumstances are definitely not ideal for further arms control measures and, in many cases, threaten the survival of already existing regimes. The global consequences of these dynamics are the undermined solidarity among the P5 states, the distress of the arms control regime as a whole (especially the NPT and its ability to advance the interests of the non-nuclear weapon states), and the weakened value of great power assurances. On the US and Russian home fronts, these problems are further escalated by the weakening positions of arms control advocates, and the strengthened arguments of hardliners.

As a result of the worsening relations, the field of nuclear security has also suffered: on December 16, 2014 Moscow informed Washington that Russia was no longer accepting US help in protecting the Russian stockpiles of weapons-grade uranium and plutonium, which practically ended the so called Cooperative Threat Reduction Program initiated by Senators Sam Nunn and Richard Lugar in 1991, one of the most successful fields of cooperation in the post-Cold War period.⁵ Moscow also announced that it would not attend the 2016 Nuclear Security Summit⁶ in the United States.⁷

Parallel to these events, the United States and Russia both conducted regular nuclear strike exercises in May 2014 which by default fueled further tensions, and indicated increased military posturing on each side. Russia was the first to initiate a massive three-day nuclear strike exercise on May 8, 2014; and the US followed suit between May 12 and 16. Although both nuclear drills had actually been

scheduled long before the crisis in Ukraine escalated, these measures still appear to bring back a Cold-War-style “tit-for-tat posturing.”⁸

These massive nuclear exercises were meant to remind the world about the immense destructive power the two sides possess. The Russian drill involved all three legs of the triad: long-range nuclear missiles launched from the ground (Topol ICBMs at the Plesetsk launch facility), test-fires from two submarines (one assigned to the Pacific, one to the Northern fleet), and air-to-surface missiles fired off Tu-95 strategic bombers. It also had an anti-ballistic missile component at the Priozersk training area. According to media reports, the exercise aimed to ensure that “Russia’s Strategic Missile Forces have sufficient readiness to conduct offensive operations involving the massive and simultaneous use of nuclear missiles.”⁹ The Russian drill was followed by US Strategic Command (USSTRATCOM)’s Global Lightning 14 Exercise, which – according to the official press release – included “approximately 10 B-52 Stratofortresses and up to six B-2 Spirit bombers to demonstrate flexibility and responsiveness in the training scenarios throughout the continental U.S.”¹⁰ As the Commander of STRATCOM, Admiral Cecil D. Haney, said, “our strategic capabilities allow USSTRATCOM to deter, dissuade, and defeat current and future threats to the U.S. and our allies.”¹¹

The next major nuclear strike exercise was NATO’s Steadfast Noon 2014 in late October 2014, at the Ghedi Torre Air Base in Italy. In the framework of this exercise, NATO countries (Belgium, Germany, Italy, the Netherlands, Poland, Turkey, and the United States) were practicing the employment of US tactical nuclear weapons deployed in Europe. Again, the exercise had been planned for years, but in the context of the crisis in Ukraine the unusual participation of Polish F-16s in a NATO nuclear strike

⁴ RT News, Russia’s new military doctrine lists NATO, US as major foreign threats, 27 December 2014, <http://rt.com/news/217823-putin-russian-military-doctrine/> (accessed: 19-01-2015).

⁵ Bryan Bender, Russia ends US nuclear security alliance, *The Boston Globe*, 19 January 2015 <http://www.bostonglobe.com/news/nation/2015/01/19/after-two-decades-russia-nuclear-security-cooperation-becomes-casualty-deteriorating-relations/5nh8NbtjitUE8UqVWFfIoL/story.html> (accessed: 22-01-2015)

⁶ The Nuclear Security Summit series was initiated by President Obama in 2009. The process aims to address the threat of nuclear terrorism by enhancing international cooperation to strengthen nuclear security. The first summit was held in Washington, DC in 2010, the second summit in Seoul in 2012, and the third one in The Hague in 2014. The next summit will be held in the US in 2016 but, as President Obama is stepping down in January 2017, many believe that this will be the last summit of the NSS series.

⁷ Karen DeYoung, Russia to skip Nuclear Security Summit scheduled for 2016 in Washington, *The Washington Post*, 5 November 2014, http://www.washingtonpost.com/world/national-security/russia-to-skip-nuclear-security-summit-scheduled-for-2016-in-washington/2014/11/05/1daa5bca-6535-11e4-bb14-4cfea1e742d5_story.html (accessed: 19-01-2015).

⁸ Hans M. Kristensen, Nuclear Exercises Amidst Ukrainian Crisis: Time For Cooler Heads, *Federation of American Scientists – Strategic Security Blog*, 16 May 2014 <http://fas.org/blogs/security/2014/05/nuke-exercises/> (accessed: 19-10-2014).

⁹ Zachary Keck, Russia, US Conduct Nuclear Weapon Drills, *The Diplomat*, 14 May 2014, <http://thediplomat.com/2014/05/russia-us-conduct-nuclear-weapon-drills/> (accessed: 19-10-2014).

¹⁰ U.S. Strategic Command Public Affairs, Global Lightning 14, 11 May 2014 http://www.stratcom.mil/news/2014/494/Global_Lightning_14/ (accessed: 19-10-2014).

¹¹ *Ibid.*



exercise and the rotational deployments of US nuclear-capable fighter squadrons to the Baltic States, Poland and Romania reflect a clear deterrent message to Moscow (and a strong reassurance to the worried Eastern European Allies).¹² In the meantime, Moscow also routinely sends its strategic bombers on patrols near (or in cases, actually within) NATO airspace, which feeds into the wariness of the Baltic States and increases the likelihood of further escalation.¹³

Although most of the above-mentioned major exercises have been scheduled for a long time beforehand, their symbolism and the ongoing crisis in Ukraine still play into the hands of defense hawks on both sides, and halt the momentum for arms control advocates to call for meaningful disarmament measures. Despite the difficulty of the situation, this paper argues that withdrawing from existing arms control agreements and abandoning nuclear disarmament efforts is not the right answer to the current crisis – it would only escalate tensions and deepen mistrust between the two sides. The paper shows how the nuclear disarmament agenda and the debate over further reductions have been affected by the events in Ukraine. Maintaining the arms control regimes is the only option if Washington and Moscow want to keep up an important field of cooperation which has the potential to provide a certain level of trust and transparency, regardless of the alarming status of US-Russia and NATO-Russia relations.

Ukraine's Nuclear Decision

Regarding the effects of the 2014 Ukrainian crisis, one of the most interesting angles of the debate relates to nuclear non-proliferation and the decision by Kiev in the early 1990s to return to Russia those 1,656 strategic nuclear weapons, over 2,000 tactical weapons, 44 nuclear-capable bombers, and 176 ICBMs which were left in Ukraine after the dissolution of the Soviet Union.¹⁴ The discussion mostly focuses on whether Ukraine was right to give up the world's

third largest nuclear arsenal, in exchange for financial aid and security guarantees. "Proliferation optimists" believe that nuclear weapons would have deterred Russia from invading Crimea. Those, however, who argue that Ukraine made the wrong decision forget that Kiev did not have the command and control of these weapons. Had Ukraine kept these weapons, it should have learnt how to adapt the launch codes, modify target programs and guidance systems, as well as how to maintain nuclear weapons in general.¹⁵ But even if Ukraine had solved these challenges, there still remained very strong national commitments (the 1990 Declaration of State Sovereignty which pledged not to use, produce or stockpile nuclear weapons) and international obligations (the 1991 commitment to join the Nuclear Non-Proliferation Treaty (NPT), the 1992 Lisbon Protocol of the Strategic Arms Reduction Treaty (START I) and the later Minsk Agreement) not to keep nuclear weapons. Besides, international circumstances were also not too favorable for such a decision by Ukraine: Russia was already uncomfortable with the desire of the former Warsaw Pact countries joining NATO and it did not like the idea of being surrounded with another nuclear-armed state; while the US was determined to continue its post-Cold War disarmament efforts. Therefore, Ukraine would have probably faced very fierce criticism, sanctions and isolation, which would have definitely delayed, and limited the scope for its autonomous nuclear development.¹⁶

Parallel to the current debate, however, some hardliners have raised the idea that Ukraine should now consider developing nuclear weapons. In this regard, Ukraine might have the specialized scientists to lead the effort, but it does not have the necessary stockpile of highly-enriched uranium (HEU) or plutonium. In 2012, Ukraine shipped out of the country its last stock of HEU. Nor does it have the appropriate infrastructure to create fissile materials (including the centrifuges).¹⁷ Therefore, Kiev would have to start from scratch, with a high probability of very strong sanctions which could considerably slow the program and put tremendous pressure on the economy.

¹² Hans M. Kristensen, Polish F-16s In NATO Nuclear Exercise In Italy, *Federation of American Scientists – Strategic Security Blog*, October 27, 2014 <http://www.fas.org/blogs/security/2014/10/steadfastnoon/> (accessed: 19-11-2014).

¹³ Thomas Frear, Lukasz Kulesa, Jan Kearns, Dangerous Brinkmanship: Close Military Encounters Between Russia and the West in 2014, *European Leadership Network*, 10 November 2014 http://www.europeanleadershipnetwork.org/dangerous-brinkmanship-close-military-encounters-between-russia-and-the-west-in-2014_2101.html (accessed: 19-11-2014).

¹⁴ Kyle Deming, The Nuclear "What If?": Counter-Historicizing a Ukrainian Deterrent, *CSIS Project on Nuclear Issues Debates the Issues Blog*, 8 April 2014, <http://poniforum.csis.org/blog/the-nuclear-what-if-counter-historicizing-a-ukrainian-deterrent> (accessed: 19-10-2014).

¹⁵ As warheads were not manufactured or tested in Ukraine, Kiev should have gone through a long learning process of 5-10 years in order to develop the necessary expertise to be able to credibly threaten to launch and detonate these Soviet weapons.

¹⁶ Patricia Lewis, Ukraine, Security Assurances and Nuclear Weapons, *Chatham House*, 28 March 2014, <https://www.chathamhouse.org/media/comment/view/198641> (accessed: 19-10-2014).

¹⁷ Kyle Deming, The Nuclear "What If?": Counter-Historicizing a Ukrainian Deterrent (footnote 14).



Besides, building a nuclear arsenal would probably not be finished until well after the current crisis is over, and a nuclear arsenal in “baby shoes” would not be enough to force Russia to give up Crimea either. Considering all these factors, historic evidence seems to suggest that, despite the shaken confidence in security assurances and Russia’s constant infiltrations, Ukraine made the right decision to give back the Soviet nuclear weapons. There are no rational gains to be had from leaving the NPT and starting a nuclear weapons program now. This latter conclusion seems to be shared by Valery Chaly, Deputy Chief of Ukraine’s presidential administration, who said at a conference on October 9, 2014 that “*Ukraine has neither plans, nor intentions, nor real opportunities for acquiring a nuclear status in the long run.*”¹⁸

But the debate over Ukraine’s (past and potential future) nuclear capabilities was not the only consequence of the crisis in Ukraine. The events of the past twelve months and the worsening relations between Washington and Moscow have also raised serious questions about the future of the bilateral arms control process between the United States and Russia – the status of forward deployed tactical nuclear weapons in Europe, the implementation of the INF Treaty and the New START agreement, the future development of the ballistic missile defense system in Europe, and the value of great-power negative security assurances.

Strategic Nuclear Weapons

When the New START Treaty entered into force in February 2011, the United States possessed 882 deployed intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs) and heavy bombers combined, and 1,800 deployed strategic warheads. Russia possessed 521 deployed strategic delivery vehicles and 1,537 deployed strategic warheads.¹⁹ The Treaty obliged both countries to reduce the number of deployed strategic nuclear warheads to 1,550 and the number of deployed

ICBMs, SLBMs and heavy bombers to 700 (with the combined number of deployed and non-deployed strategic deliveries not exceeding 800). The Treaty is in effect for ten years, and Washington and Moscow pledged to meet the limits by February 2018. Although there were rocky periods between the two sides because of disagreements over missile defense and other issues, the implementation of the New START Treaty seemed to be on track, and the verification mechanisms (most importantly the on-site inspections, and the notifications and data exchanges) have so far remained unchallenged.

According to the first data exchanges, Russia was above the warhead limit in late 2011, but since March 1, 2012 it has constantly been below the line in terms of deployed delivery vehicles and deployed warheads as well.²⁰ Before the crisis in Ukraine started, the October 2013 data exchange showed that the US had implemented some reductions but it was still exceeding the limits of the New START agreement both in terms of deployed warheads and in terms of deployed delivery systems. Russia, in the meanwhile, remained below the limits in both categories.²¹ Half a year later, the April 2014 data exchange revealed that the US has continued the reductions and implemented a meaningful cut in the number of warheads and the deliveries as well, while Russia has turned the trend and significantly increased its forces, getting very close to the deployable warhead limit of the Treaty.²² In comparison to these developments, the most recent data exchange showed that this disappointing trend has continued on the Russian side, and the number of deployed US strategic nuclear forces has also grown in both categories. After the annexation of Crimea and the significant deterioration of relations, the latest numbers of October 2014 revealed that the United States now has a deployed strategic nuclear arsenal of 1,642 warheads and 794 deliveries, while Russia has 1,643 deployed warheads and 528 delivery vehicles.²³ Over the last six months, both sides increased the number of deployed forces: the US by 57 warheads on 16 additional launchers, and Russia by 131 warheads on 23 additional

¹⁸ Tass Russian News Agency, Ukraine has no plans to become nuclear state — official, 9 October 2014, <http://en.itar-tass.com/world/753582> (accessed: 19-10-2014).

¹⁹ U.S. Department of State, New START Treaty Aggregate Numbers of Strategic Offensive Arms, 1 June 2011, <http://www.state.gov/t/avc/rls/164722.htm> (accessed: 19-10-2014).

²⁰ U.S. Department of State, New START Treaty Aggregate Numbers of Strategic Offensive Arms, 6 April 2012, <http://www.state.gov/t/avc/rls/178058.htm> (accessed: 19-10-2014).

²¹ U.S.: 809 deployed delivery systems and 1,688 deployed warheads. Russia: 473 deployed delivery systems and 1,400 deployed warheads. U.S. Department of State, New START Treaty Aggregate Numbers of Strategic Offensive Arms, October 1, 2013, <http://www.state.gov/t/avc/rls/215000.htm> (accessed: 19-10-2014).

²² U.S.: 778 deployed delivery systems and 1,585 deployed warheads. Russia: 498 deployed delivery systems and 1,512 deployed warheads. U.S. Department of State, New START Treaty Aggregate Numbers of Strategic Offensive Arms, 1 April 2014, <http://www.state.gov/t/avc/rls/224236.htm> (accessed: 19-10-2014).

²³ U.S. Department of State, New START Treaty Aggregate Numbers of Strategic Offensive Arms, 1 October, 2014, <http://www.state.gov/t/avc/rls/232359.htm> (accessed: 19-10-2014).



launchers. This trend is quite disturbing, as Russia at the moment deploys more strategic nuclear warheads and delivery systems than it did in February 2011 when the New START Treaty entered into force.

Even if the crisis in Ukraine is not the only reason for the poor performance of both sides in terms of strategic nuclear reductions, it is definitely a disappointing reflection on the worsening relations between Washington and Moscow, and it will most likely trigger harsh criticism at the April 2015 NPT Review Conference, where the P5 countries are expected to show their continued commitment to nuclear disarmament and demonstrate progress. However, it is important to emphasize that there is no doubt that both states are still able to meet the limits of the Treaty by the 2018 deadline, and the most recent increase in nuclear forces does not mean a robust build-up either in US or Russian nuclear forces.

There is a natural fluctuation in the numbers, resulting from launchers moving in and out of overhaul. This is clearly the case with the US increase, where the fluctuation primarily comes from loading and offloading ballistic missile submarines (SSBNs) – most recently, the return to service of the USS Virginia SSBN meant an increase of 24 SLBMs with approximately 100 deployed warheads. But the overall US performance on the New START implementation is still better than that of Russia, as Washington has reduced its deployed arsenal by 158 warheads and 88 launchers since 2011.²⁴

Russia, on the other hand, has 106 more deployed warheads and seven more deployed delivery systems than in 2011. The most recent increase in the deliveries comes from two sources: the pace of introducing new missiles has been doubled from nine to eighteen missiles per year, while the pace of retirement has been slowed down to 22 missiles, instead of the previous 50 missiles per year. In addition to these changes, the overall number of warheads on the deployed missiles has also increased slightly.²⁵ The

other major element of the new Russian deployments is the introduction of the Borei-class ballistic missile submarines, with sixteen Bulava SLBMs and about 100 warheads each. The first two boats came into service in late 2013, and they were scheduled to conduct an operational launch sometime in October 2014.²⁶

The crisis in Ukraine definitely slowed the implementation of strategic nuclear reductions, and Washington and Moscow will most likely face loud criticism at the next NPT Review Conference for these trends. But “*playing with the numbers*,” slowing down the retirements, and accelerating the introduction of new missiles for the sake of sending a political message towards the other side does not mean that the two states are engaged in a robust nuclear arms race again. Although the numbers in the most recent data exchange do not look good, they are most likely only temporary²⁷ and, despite the setbacks in implementation, the US and Russia can still easily meet the New START deadlines and keep the process alive.

In the wake of announcing sanctions against Moscow, some Russian lawmakers proposed to halt the verification mechanisms²⁸ and some went so far as to say that they threatened to suspend the Treaty.²⁹ But it is in the interest of both sides to monitor each other, especially in such a crucial period when the old strategic systems are being gradually phased out and new ones are coming in (on the Russian side, for example, regardless of the modernization efforts of Moscow, about 240 strategic missiles must be retired over the next decade). Nothing proves the value of transparency better than the verification records of the New START Treaty, according to which the US and Russia have already conducted a combined total of 134 on-site inspections and 7,256 notifications since the entry into force of the agreement. Therefore, despite the historic lows in US-Russian relations, keeping the New START Treaty alive seems to be an important element of maintaining a certain level of transparency and cooperation in the strategic nuclear capabilities.

²⁴ Hans M. Kristensen, New START: Russia and the United States Increase Deployed Nuclear Arsenals. *Federation of American Scientists – Strategic Security Blog*, 2 October 2014, <http://fas.org/blogs/security/2014/10/newstart2014/> (accessed: 19-10-2014).

²⁵ An important element of the new deployments is the SS-27 Mod 2 ICBM (RS-24 or Yars), which is capable of carrying up to four warheads, and it partly replaces the SS-25s (RS-12 M or Topol), which is a single-warhead missile. However, at the Kozelsk division, the SS-27s are replacing the old SS-19s (RS-18 or UR-100NUTTH), which will slightly moderate the increasing trend of warhead loadings as the SS-19s carried six warheads in comparison to the four warheads of the SS-27s.

²⁶ *Ibid.*

²⁷ Despite the modernization programs, Hans M. Kristensen and Robert S. Norris, the authors of the Russian nuclear forces nuclear notebook, argue that all Soviet-era ICBMs will be retired by 2022, which means that the Russian ICBM force will shrink to between 220 to 250 missiles by the early 2020s.

Hans M. Kristensen, Robert S. Norris, Russian nuclear forces, 2014, *The Bulletin of the Atomic Scientists*, Vol.70, No.2, pp. 75-85, <http://bos.sagepub.com/content/70/2/75.full.pdf+html> (accessed: 22-01-2015).

²⁸ Global Security Newswire, Russia May Halt Treaty Verification in Mounting Tit for Tat, 10 March 2014, <http://www.nti.org/gsn/article/russia-new-start-inspections-could-be-halted-over-ukraine/?mgs1=4d7ef08dsK> (accessed: 19-10-2014).

²⁹ Tass Russian News Agency, Russian lawmakers propose to suspend New START Treaty, 17 July 2014, <http://en.itar-tass.com/world/741087> (accessed: 19-10-2014).



Intermediate Range Nuclear Weapons

Parallel to the difficulties in strategic nuclear reductions, the field of intermediate range nuclear weapons has also suffered some serious setbacks over the past year. In this regard, the most important milestone was the July 2014 US decision to officially accuse Russia of violating the 1987 INF Treaty. Every year the State Department's Bureau of Arms Control, Verification and Compliance submits to Congress a report on the "*Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments.*" In the 2014 Compliance Report (issued on July 31, 2014), Washington stated that "*the Russian Federation is in violation of its obligations under the INF Treaty not to possess, produce, or flight-test a ground-launched cruise missile (GLCM) with a range capability of 500 km to 5,500 km, or to possess or produce launchers of such missiles.*"³⁰

The academic debate about a potential Russian INF violation has been going on for years and, though the 2014 Compliance Report made a reference to a ground-launched cruise missile, it has never been defined which specific systems are involved, what kind of violation occurred, or exactly when. Therefore, the public debate primarily concentrated on two systems, which are supposed to have a range within the limits of the INF Treaty: the first is the RS-26 (Rubezh) "*intermediate-range ICBM*", and the second is the R-500 cruise missile (Iskander-K).³¹ However, at the moment both the Obama administration and the expert community seem to be focusing their attention on the R-500 cruise missile, which is probably easier to prove as a violation of the Treaty.

The R-500 was developed for the Iskander system and it has a stated range of 500 km. But Russia is believed to have tested the R-500 beyond the range of 500 km and it is reported to be on the verge of deploying the system,

which means that now is the moment for strong pressure on Moscow. According to a 2007 Pravda article, and a 2014 IISS analysis, these R-500 cruise missiles would allow Moscow "*to destroy any defense system including most recent perspective ballistic missile defense systems*".³² Therefore, experts believe that "*the inclusion of a cruise missile as part of the Iskander system may have been in part a Russian military response to NATO's ballistic-missile defence initiative.*"³³

Meanwhile, the RS-26 (which is speculated to be a two-stage SS-27 Mod 2, sometimes called Yars-M)³⁴ seems to be a more difficult case to confront, as it was tested once at an intercontinental range and is therefore counted under the New START agreement. In the long run, however, it might constitute a bigger problem than the R-500, as the RS-26 is a ballistic missile with multiple warheads, able to reach any Western European capital – exactly the kind of weapon system which the INF Treaty tried to eliminate in the first place. In a crisis situation between Moscow and the Eastern parts of Europe, this capability could threaten Western European NATO forces, obliging NATO to be more careful with its activities on the Eastern flank of the Alliance.³⁵ However, it is important to note that while the majority of the Iskander deployments have focused so far on the European borders of Russia, the first unit to receive the RS-26 is supposed to be the 29th Guards Missile Division in Irkutsk, Siberia, suggesting that the development of the system is not solely focused on NATO's missile defense system, but on China's growing missile capabilities as well.³⁶

Regarding the timing of the accusation, reports about the Russian violation go back to 2007 (the first visible test of the R-500) and Undersecretary of State for Arms Control and International Security, Rose E. Gottemoeller, has been building a case since May 2013.³⁷ Therefore, some would argue that the 2014 Compliance Report was not about Ukraine. Others, however, still speculate why the United States decided to stay silent on the issue until now, and

³⁰ U.S. Department of State, Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, page 8, 31 July 2014, <http://www.state.gov/documents/organization/230108.pdf> (accessed: 19-10-2014)

³¹ Jeffrey Lewis, Russia and the INF Treaty, *Arms Control Wonk*, 28 April 2014, <http://lewis.armscontrolwonk.com/archive/7307/russia-and-the-inf-treaty> (accessed: 10-19-2014).

³² Alexander Timoshik, New Russian missile R-500 to destroy any US defense system, *Pravda*, 30 May 2007, http://english.pravda.ru/russia/kremlin/30-05-2007/92443-missile_r_500-0/ (accessed: 19-10-2014).

³³ Douglas Barrie, Henry Boyd, Russian cruise missile goes off-range, *IISS Military Balance Blog*, 21 July 2014, <http://www.iiss.org/en/militarybalanceblog/blogsections/2014-3bea/july-8d3b/russian-cruise-missile-goes-off-range-0a23> (accessed: 19-10-2014).

³⁴ Jeffrey Lewis, Russia and the INF Treaty (footnote 31).

³⁵ Jeffrey Lewis, The Problem With Russia's Missiles, *Foreign Policy Magazine*, 29 July 2014, http://www.foreignpolicy.com/articles/2014/07/29/the_problem_with_russia_s_missiles_r500_rs26_inf_treaty (accessed: 19-10-2014).

³⁶ Douglas Barrie, Henry Boyd, Russian cruise missile goes off-range (footnote 33).

³⁷ Brian P. McKeon, Statement of Honorable Brian P. McKeon, Principal Deputy Under Secretary of Defense for Policy before the House Committee on Armed Services, Subcommittee on Strategic Forces and Committee on Foreign Affairs, Subcommittee on Terrorism, Nonproliferation, and Trade, 10 December 2014, p.7. <http://docs.house.gov/meetings/AS/AS29/20141210/102785/HHRG-113-AS29-Wstate-McKeonB-20141210.pdf> (accessed: 22-01-2015).



came out with its accusations after US-Russia relations reached a historic low. Whether it is directly connected to Ukraine or not, the Compliance Report definitely has a strong political message and Moscow's decision on how to handle the situation will certainly influence the future prospects of nuclear arms control.

In this regard, the former director for Defense Policy and Arms Control on the National Security Council at the White House, Steve Andreasen, outlines four options for Moscow: “(a) stay in the Treaty, admit an INF violation and discontinue activities banned by the Treaty; (b) stay in the Treaty, not admit to an INF violation, but discontinue activities banned by the Treaty; (c) stay in the Treaty, not admit to an INF violation, but then continue covertly with activities banned by the Treaty; or (d) withdraw from the Treaty and continue with activities that were banned by the Treaty.”³⁸ According to Andreasen, the first two options are very unlikely, and Russia will probably try to stay in the INF, “not admit a violation, but continue covert activities.”

This is exactly what we have seen so far. In their December 10, 2014 testimony to the House of Representatives, Gottemoeller and the Principal Deputy Undersecretary of Defense for Policy, Brian McKeon, both claimed that the US remains committed to the continued viability of the INF Treaty, and they have held several bilateral discussions to bring Russia back to compliance with its obligations.³⁹ Russia, however, has not admitted to its violation so far, and seems to be unwilling to address the US concerns. In fact, Moscow has also accused the US of being in violation of the INF Treaty by possessing “certain U.S. ballistic target missiles, [...] armed, unmanned aerial vehicles, [...] and the launcher complex for the Aegis Ashore missile defense system [which is claimed to be] capable of launching Tomahawk cruise missiles.”⁴⁰

With these mutual accusations out, the damage is already done and it will be really challenging to rebuild the trust

between the parties. But withdrawing from the INF Treaty is not a solution either. The US also admits that it “is made safer and more secure by such agreements” and it will review a “series of diplomatic, economic, and military measures to protect the interests of the United States and our Allies, and encourage Russia to uphold its nuclear arms control commitments.”⁴¹ Under the current circumstances, putting political and economic pressure on Russia seems to be the right strategy, as it forces Moscow to react somehow to the accusations. If Moscow really wants to deploy intermediate range missiles, it will have to face the political and potential military consequences of discarding the regime (in this case, however, the US still needs to consider the dangers of escalation and the possible costs of upsetting Russia, both in the US-Russia dimension and in the NATO-Russia dimension).

Non-Strategic Nuclear Forces

In the field of non-strategic nuclear weapons, the crisis in Ukraine reenergized the debate on the role of US tactical nuclear weapons in Europe, and it raised many questions regarding their location and future modernization. Although NATO does not officially disclose the number and location of the forward deployed US tactical nuclear weapons in Europe, researchers have been trying to monitor the changes in numbers and location, based on unclassified documents, and statements from US and NATO officials and agencies.⁴² In a 2012 Federation of American Scientists (FAS) Report on Non-Strategic Nuclear Weapons, issue expert Hans M. Kristensen estimated that today the US still deploys nearly 200 B61-3 and B61-4 gravity bombs in Europe.⁴³ According to this report, these weapons are located at six military bases in five NATO member states. A significant portion of these weapons are designated for delivery by the host countries' aircraft.⁴⁴

Regarding the future of these weapons, the Alliance is divided: prior to the 2010 Strategic Concept, German

³⁸ Steve Andreasen, European Security Policy and Arms Control Following Ukraine and INF Controversy. *European Leadership Network*, 3 September 2014, http://www.europeanleadershipnetwork.org/european-security-policy-and-arms-control-following-ukraine-and-inf-controversy_1839.html (accessed: 19-10-2014).

³⁹ Rose E. Gottemoeller, Rose E. Gottemoeller, Under Secretary of Arms Control and International Security: Testimony – Joint Hearing House Foreign Affairs Committee, Subcommittee on Terrorism, Nonproliferation, and Trade House Armed Services Committee, Subcommittee on Strategic Forces, 10 December 2014, <http://docs.house.gov/meetings/AS/AS29/20141210/102785/HHRG-113-AS29-Wstate-GottemoellerR-20141210.pdf> (accessed: 22-01-2015); and Brian P. McKeon, Statement (footnote 37).

⁴⁰ Brian P. McKeon, Statement, p. 9 (footnote 37).

⁴¹ Rose E. Gottemoeller, Testimony, p. 4 (footnote 39).

McKeon, Brian P. [2014], Statement, p. 2 (footnote 37).

⁴² Hans M. Kristensen, Non-Strategic Nuclear Weapons, *Federation of American Scientists* – Special Report No. 3, May 2012, http://fas.org/_docs/Non_Strategic_Nuclear_Weapons.pdf (accessed: 20-10-2014). Amy F. Wolf, Nonstrategic Nuclear Weapons, *Congressional Research Service*, 3 January 2014, <http://fas.org/sgp/crs/nuke/RL32572.pdf> (accessed: 20-10-2014).

⁴³ Hans M. Kristensen, Non-Strategic Nuclear Weapons (footnote 42).

⁴⁴ *Ibid.*



officials (e.g. Foreign Minister Guido Westerwelle) officially stated that their government supported the withdrawal of these weapons, and the Belgians and the Dutch also seem to be in support of withdrawal (as well as several other NATO members).⁴⁵ The new members of NATO, in contrast, advocate for a continued stationing of US tactical nuclear weapons in Europe, as they still attribute important political value to these weapons, which are considered the strongest symbols of the commitment of the United States to defend its European allies.⁴⁶

The events in Ukraine had mixed consequences on the debate over these tactical nuclear weapons. Although the crisis did not have a nuclear dimension in the sense that nobody believed that the employment of nuclear weapons would be the solution for the situation, Russian President Vladimir Putin still used his country's robust nuclear capabilities as a cover to act without consequences.⁴⁷ During the past year, Moscow has used the "nuclear card" in many ways to make the West think twice before it acted in Ukraine – the concept of a de-escalatory nuclear strike was re-introduced in the public debate;⁴⁸ and Russian officials and media personalities have repeatedly warned the West about the immense destructive power of the Russian nuclear arsenal, reminding the Obama administration that "*Russia is the only country in the world realistically capable of turning the United States into radioactive ash.*"⁴⁹ Besides these rhetorical threats, several rumors appeared about Russian nuclear weapons deployed in Crimea. Russian Foreign Minister Sergei Lavrov claimed that Russia had the right to deploy nuclear weapons anywhere on its own territory, which includes the recently annexed Crimea.⁵⁰ In this regard, NATO's Supreme Allied Commander—Europe, US General Philip Breedlove, confirmed in

November 2014 that Russia has moved nuclear-capable forces to Crimea, but he also stated that NATO did not know if actual warheads were placed in the region.⁵¹ Despite these ambiguous statements, analysts have found no hard evidence that dramatically new deployments (including the deployment of actual nuclear warheads) are going on in Crimea at the present time. Since the Russian Black Sea Fleet in Sevastopol has had nuclear-capable forces for decades, more ships and submarines would not provide a new capability in this regard. If the rumors are true about the future deployment of Backfire bombers and Iskander-M short-range ballistic missiles, then it would be an important new development. But even these capabilities would not provide a longer reach for Russian forces than they already have through the existing Backfire bases. These uncertainties, however, clearly reflect the dangers of misinterpretation between conventional capabilities and non-strategic nuclear forces, adding a twisted nuclear dimension to the crisis in Ukraine, and also requiring careful consideration on both sides regarding the message they intend to send through these new deployments.⁵²

On NATO's side, the principles of the Alliance's nuclear policy were laid down in the 2010 Strategic Concept and the 2012 Deterrence and Defence Posture Review (DDPR). The 2010 Strategic Concept indicated that NATO would remain a nuclear alliance as long as nuclear weapons continue to exist, but also noted that the reliance on nuclear weapons in NATO strategy had been reduced. The document emphasized the importance of US strategic nuclear forces (as opposed to tactical nuclear forces like those stationed in Europe) as "*the supreme guarantee of the security of the Allies.*"⁵³ NATO adopts a policy of calculated ambiguity and does not determine in advance how it

⁴⁵ Julian Borger, Germans Press for Removal of U.S. Nuclear Weapons in Europe, *The Guardian*, 7 November 2009, <http://www.theguardian.com/world/2009/nov/06/germany-removal-us-nuclear-weapons> (accessed: 20-10-2014).

⁴⁶ Jacek Durkalec, NATO Defence and Deterrence Posture: Central and Eastern European Perspectives, *The Polish Institute of International Affairs – PISM Policy Paper* no. 29, 15 May 2012, http://www.pism.pl/files/?id_plik=10448 (accessed: 20-10-2014).

⁴⁷ Pavel Podvig, What to do about Russian belligerence, *The Bulletin of the Atomic Scientists*, 16 January 2015, <http://thebulletin.org/what-do-about-russian-belligerence7932> (accessed: 22-01-2015).

⁴⁸ "*A strategy envisioning the threat of a limited nuclear strike that would force an opponent to accept a return to the status quo ante.*"

Nikolai Sokov, Why Russia calls a limited nuclear strike "de-escalation", *The Bulletin of the Atomic Scientists*, 13 March 2014, <http://thebulletin.org/why-russia-calls-limited-nuclear-strike-de-escalation> (accessed:22-01-2015).

⁴⁹ Maria Tadeo, State television presenter warns Russia could 'turn the US into radioactive dust', *The Independent*, 17 March 2014, <http://www.independent.co.uk/news/world/europe/state-television-presenter-warns-russia-could-turn-the-us-into-radioactive-dust-9197433.html> (accessed: 22-01-2015).

⁵⁰ Interfax Ukraine, Crimea became part of Russia, which has nuclear weapons according to NPT – Lavrov, 15 December 2014, <http://en.interfax.com.ua/news/general/239978.html> (accessed: 22-01-2015).

⁵¹ CBS News, Russian forces "capable of being nuclear" moving to Crimea, NATO chief says, 11 November 2014, <http://www.cbsnews.com/news/russian-forces-capable-of-being-nuclear-moving-to-crimea-nato-chief-says/> (accessed: 22-01-2015).

⁵² Hans M. Kristensen, Rumors About Nuclear Weapons in Crimea. *Federation of American Scientists – Strategic Security Blog*, 18 December 2014, <http://fas.org/blogs/security/2014/12/crimea/> (accessed: 22-01-2015).

⁵³ North Atlantic Treaty Organization, Active Engagement, Modern Defence, Strategic Concept for the Defence and Security of The Members of the North Atlantic Treaty Organization, 29 November 2010, http://www.nato.int/cps/en/natohq/topics_82705.htm (accessed: 16-02-2015)



would react to aggression. However, the organization does acknowledge the Negative Security Assurances (NSAs) that guarantee that nuclear weapons will not be used or their use threatened against NPT non-nuclear weapon states in compliance with their treaty obligations.⁵⁴ Besides, the DDPR adopted at the May 2012 NATO Summit in Chicago states that “*the Alliance’s nuclear force posture currently meets the criteria for an effective deterrence and defense posture.*” It notes the possibility of reducing reliance on non-strategic nuclear weapons in Europe, but links such a move to reciprocal steps by Russia.⁵⁵

Regarding the role and location of these non-strategic nuclear weapons, the crisis in Ukraine had two different interpretations. On the one side, conservative circles saw this crisis as a reaffirmation of the importance of forward deployment, while liberal arms control circles saw it as proof of the uselessness of such deployment.

In a *Washington Post* op-ed from August 2014, Brent Scowcroft, Stephen J. Hadley and Franklin Miller argued against the unilateral withdrawal of these weapons, as they are still considered important “*political weapons*” which constitute a “*visible symbol*” of the US commitment. They claimed that Russia’s aggression in Ukraine, the nuclear strike exercises, the air space violations, the ongoing modernization programs, and the INF violation all prove that nuclear weapons “*matter to Russian leadership*” and NATO’s nuclear capabilities are still the most valuable deterrent against Russian aggression. Besides, they recalled that the 2010 Strategic Concept and the 2012 Deterrence and Defence Posture Review of NATO both reaffirmed the nuclear status quo, and now is not the right time to “*destabilize the NATO alliance and traumatize our NATO allies by withdrawing our nuclear weapons from Europe.*”⁵⁶ These reactions, however, were not the only arguments of advocates of forward deployment. Besides the continued stationing of US tactical nuclear weapons in Europe, some raised the idea of redeploying these weapons with a shift to

the Eastern parts of NATO.⁵⁷

Arms control advocates, on the other hand, argue that time has passed over these tactical nuclear weapons; they should be withdrawn and investments should be reallocated into those conventional capabilities which can provide real 21st century assurances for the Eastern European NATO members. The events of the past few months seem to support the arguments of this group. In response to the crisis in Ukraine, Central and Eastern European countries were asking for a stronger conventional military footprint, visible assurances (such as contingency plans, or joint exercises based on Article 5 scenarios), and they did not advocate for any reevaluation of the “*three no’s policy*” (according to which NATO has “*no intention, no plan and no reason to deploy nuclear weapons on the territory of new members*”), codified in the 1997 NATO-Russia Founding Act.⁵⁸

The 2014 NATO Summit in Wales essentially aligned with these priorities: in order to reassure the concerned allies, NATO increased the readiness and responsiveness of its conventional forces (with a special focus on the Baltic and the Central European regions) and, in a press conference, NATO’s then Secretary General Anders Fogh Rasmussen reaffirmed that with regard to the redeployment of tactical nuclear weapons, “*at this stage I do not foresee any NATO request to change the content of the NATO-Russia Founding Act.*”⁵⁹

Though the crisis in Ukraine clearly reflected the primacy of conventional assurances in the eyes of Central and Eastern European allies, it also seemed to strengthen the nuclear status quo, and weaken the position of those who advocate for the withdrawal of these weapons. Although – as (Ret) General James E. Cartwright, former head of US Strategic Command, said in 2010 – there is no military mission for these weapons, and the original rationale for their stationing (stopping a Soviet invasion against Europe) no longer exists,⁶⁰ their withdrawal would still send a political

⁵⁴ North Atlantic Treaty Organization, Deterrence and Defence Posture Review, 20 May 2012, http://www.nato.int/cps/en/natolive/official_texts_87597.htm (accessed: 16-02-2015).

⁵⁵ *Ibid.*

⁵⁶ Brent Scowcroft, Stephen Hadley, Miller, Franklin, NATO-based nuclear weapons are an advantage in a dangerous world, *The Washington Post*, 17 August 2014, http://www.washingtonpost.com/opinions/nato-based-nuclear-weapons-are-an-advantage-in-a-dangerous-world/2014/08/17/059d0ddc-23ba-11e4-8593-da634b334390_story.html (accessed: 20-10-2014).

⁵⁷ CSIS PONI Debate [2014], Kingston Reif and Peter B. Doran speak at CSIS debate on U.S. tactical nuclear weapons in Europe, 19 May 2014, http://armscontrol-center.org/issues/nuclearweapons/articles/kingston_reif_speaks_at_csis_debate_on_us_tactical_nuclear_weapons_in_europe/ (accessed: 22-01-2015).

⁵⁸ Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation signed in Paris, France, 27 May 1997, at http://www.nato.int/cps/en/natohq/official_texts_25468.htm

⁵⁹ Anders Fogh Rasmussen, Monthly press conference, *NATO Newsroom*, 19 May 2014 http://www.nato.int/cps/en/natolive/opinions_109980.htm?selectedLocale=en (accessed: 20-10-2014).

⁶⁰ Kingston Reif, U.S. Nukes in Europe Are Useless – They’re also a distraction from pressing needs, *Real Clear Defense*, 5 September 2014, http://www.realcleardefense.com/articles/2014/09/05/us_nukes_in_europe_are_useless_107414.html (accessed: 10-20-2014).



message to Moscow and the world. Therefore, as another analyst has said, this is not the right time to withdraw these weapons as “*optics matter*”. In light of Russian aggression and the constant provocations, NATO cannot afford to unilaterally withdraw these weapons in the middle of a crisis, which would send the wrong message and might look like a capitulation, encouraging further agitations by Moscow.⁶¹

But not withdrawing these weapons until the crisis in Ukraine is resolved does not mean that they should not be withdrawn at all. Despite what advocates of forward deployment suggest, a withdrawal of these tactical weapons would not mean that NATO is left without nuclear assurances. As the 2012 DDPN itself said, strategic nuclear weapons are the ultimate guarantor of extended deterrence, and the nuclear umbrella of the US could still be maintained without the forward deployment of tactical nuclear weapons. The most visible proof of this was Washington’s decision to send strategic bombers to Europe as a signal to Moscow in June 2014.⁶²

Besides, the currently deployed B61 gravity bombs are getting close to the end of their service lives and their delivery platforms are also aging. Over the next 10-15 years, the existing European aircraft which are capable of carrying these weapons (namely the Tornado fighters and the F-16s) are due to retire. Some of these will be replaced by the F-35, in the case of which adding nuclear capability would mean adding hundreds of millions of dollars to the already extremely expensive price of the aircraft.⁶³ Not to mention the modernization of the nuclear storage facilities, which would also put a huge financial burden on host nations in a period when defense spending is shrinking in the whole of Europe. But continuing forward deployment and modernizing the weapons systems will undoubtedly put the greatest financial burden on the US: the Life Extension Program of the B61 (which aims to replace all current modifications of the B61 with the B61-12 gravity bomb, equipped with a guided tail kit for increased accuracy) is estimated to cost around 12 billion dollars at the moment.⁶⁴

In addition to the extremely high price tag of the modernization program, a continued forward deployment, with an increased military capability would go against President Obama’s promise not to build new nuclear weapons, and not to support new military missions. This would also look bad in the eyes of the non-nuclear weapon states of the NPT, as it falls under the category of vertical proliferation. The increased accuracy of future F-35 fighters will definitely improve NATO’s nuclear posture, and add a new mission capability.⁶⁵

Altogether, the crisis in Ukraine has had several ambiguous consequences in the field of non-strategic nuclear weapons. Advocates of forward deployment were right to conclude that nuclear weapons still matter to the Russian leadership, but nuclear deterrence seems to work only on Moscow’s side. While the Russian “nuclear card” provided insurance for President Putin, and it moderated how the West was reacting to the Russian aggressions in Ukraine and in the air space of the Baltic States, NATO’s “nuclear card” did not seem to have much of an effect on the calculations of the Kremlin. Paradoxically, the crisis strengthened the importance of conventional assurances within NATO but, at the same time, it also seems to support the status quo of non-strategic nuclear weapons.

Ballistic Missile Defense in Europe

The crisis in Ukraine not only affected the debate on nuclear weapons. It also had some relevance to NATO’s European Phased Adaptive Approach (EPAA) ballistic missile defense (BMD) system, which is a crucial element of the European security architecture, and its development will definitely influence the disarmament talks between the US and Russia. In this regard, the heat of the crisis stimulated some suggestions to accelerate the deployment of the EPAA and to transform it in a way that it would provide better coverage against missiles launched from Russia. In its current form, NATO insists that the system is not directed against Russia, but it is aimed to defend against potential missile launches from the Middle East;

⁶¹ Tom Nichols, NATO’s Tactical Nuclear Weapons Must Go—But Not Today, *The National Interest*, 23 August 2014, <http://nationalinterest.org/feature/nato%E2%80%99s-tactical-nuclear-weapons-must-go%E2%80%94not-today-11137> (accessed: 20-10-2014).

⁶² “Three U.S. B-52 Strategic Bombers have Deployed to the UK,” *The Aviationist* online, 4 June 2014, <http://theaviationist.com/2014/06/04/b-52-deployed-to-fairford/> (accessed: 04-02-2015).

⁶³ Hans M. Kristensen, Adam Mount, Why NATO should eliminate its tactical nukes, despite Russian belligerence, *The Bulletin of the Atomic Scientists*, 3 September 2014, <http://thebulletin.org/why-nato-should-eliminate-its-tactical-nukes-despite-russian-belligerence7415> (accessed: 20-10-2014).

⁶⁴ Hans M. Kristensen, B61-12, The New Guided Standoff Nuclear Bomb, *Federation of American Scientists*, 2 May 2014, http://fas.org/programs/ssp/nukes/publications1/Brief2014_PREPCOM2.pdf (accessed: 10-20-2014).

⁶⁵ The FY 2015 budget request of the Air Force indicates that the integration of the B61-12 on NATO F-16 and Tornado aircraft will start in 2015, and be completed in 2017 and 2018.



and if the system was directed against Russia (as Moscow claims), the sites of the deployment would be different. The suggestions to transform the system included reviving Phase IV (which was cancelled by US Secretary of Defense Chuck Hagel in March 2013), and deploying Aegis-BMD equipped ships in the Baltic and Black Seas.⁶⁶

These steps, however, would most likely trigger harsh criticism from Moscow and, if tensions escalate, might lead to serious countermeasures (Russia has already threatened to “respond” to any NATO attempts to undermine its nuclear deterrent). Moscow has been suspicious about US intentions since the Bush administration first raised the idea of a European BMD system in the early 2000s. Ever since, Moscow has feared that a highly capable missile defense system in Europe would constitute a threat to its ICBM forces, and accused NATO of secretly working to weaken Russian offensive capabilities under the cover of taking countermeasures against a hypothetical missile threat from the Middle East. This is why any expansion of the system would only feed into the Russian paranoia about the EPAA. First, it could assure defense hawks in Russia that the European system was directed against them from the very beginning, and second, the expansion could be interpreted as a proof of how rapidly the system can be transformed to threaten Moscow’s military capabilities. Either way, the arms control process would probably fall victim to events. Russia is already claiming that offensive and defensive capabilities cannot be handled separately, and any future arms control agreement should address all areas which influence strategic stability.⁶⁷ According to this logic, as long as there is no limitation over the BMD systems, the area of offensive arms control might also be held hostage.

Therefore, despite Russian aggression in Ukraine, the expansion of the EPAA would be counterproductive and it would only escalate tensions. Instead, Washington and its European allies should continue the implementation of the announced three phases, which will not include any defense capability against ICBMs, and would clearly demonstrate that the system is built to address threats from the Middle East, not Russia.

In this regard, it is also important that if the Alliance decides to cancel any more phases, it should only happen

in exchange for concrete measures on the Russian side. In a 2012 National Academy of Sciences (NAS) letter to Congress, NAS experts outlined that “Phase IV as currently defined is not necessary for theater defense and is at best less than optimal for homeland defense. If Phases I-III are fully implemented, the additional interceptor capability of Phase IV is not required for European (or other theater) defense.”⁶⁸ According to this assessment, the primary reason in 2013 to cancel Phase IV (which some believed would have some limited capabilities against – certain – ICBMs) was the fact that the system was not really required for the theater defense of Europe on the one hand, and was unable to protect the continental US on the other. But even if this decision was based purely on the technical capabilities of the systems, and was not meant to make a concession to Russian demands, the US still expected some good grace from Moscow for eliminating the most worrying element of the EPAA. Washington, however, did not receive anything in return – in fact, relations have become only worse since then. In the meanwhile, building the EPAA enjoys strong support among the new members of NATO, as it anchors the US to the continent, and symbolizes its strong commitment to Europe. Therefore, the best strategy at the moment is proceeding with the original three phases (according to the original timeframe), and articulating more clearly that the system is still directed against the IRBM capabilities of the Middle East. Any further limitation of the deployment can only be part of a greater bargain which strengthens the entire European security architecture.

Conclusions and Recommendations

In order to find a solution to some of the problems identified in this paper, one of the most important recommendations is to maintain the existing arms control regimes. Now that NATO has suspended its practical day-to-day cooperation with Moscow, it is essential to maintain those channels where there is still room for great-power dialogue, and where mutual interests link the United States, NATO, and Russia together. The arms control process has already proved its value in overcoming conflicts during the hottest moments of the Cold War, and it can still provide transparency, save a certain level of trust, and maintain a small segment of cooperation which can spread over to other areas.

⁶⁶ Greg Thielmann, The “Cold Peace”: Arms Control After Crimea, *Arms Control Association* – Issue Briefs Volume 5, Issue 5, 20 March 2014, <http://www.armscontrol.org/issuebriefs/The-Cold-Peace-Arms-Control-After-Crimea%20> (accessed: 20-10-2014).

⁶⁷ Anton Denisov, Russia calls for consideration of all factors threatening strategic stability – Lavrov, *RIA Novosti*, 1 March 2011, <http://en.ria.ru/russia/20110301/162810196.html> (accessed: 20-10-2014).

⁶⁸ National Academy of Sciences, Letter to Representative Michael R. Turner and Representative Loretta Sanchez, 30 April 2012, p.2, http://hosted.ap.org/specials/interactives/documents/nas_response.pdf (accessed: 22-01-2015).



In this regard, the New START Treaty seems to be the strongest tie between Washington and Moscow. Although the latest numbers are disappointing, and there were arguments on both sides to withdraw from the Treaty, monitoring the other side's strategic capabilities is still a vital national security interest for the parties. These verification mechanisms will hopefully guarantee the survival of the process, make sure that the limits are met by the 2018 deadline, and create the conditions for further talks in strategic nuclear arms control.

The case of the INF Treaty is a harder one, as the damage is already done by the new Russian modernization programs and the mutual accusations that the other side is in violation of its Treaty obligations. But it can still be salvaged as there are strategic interests which support its maintenance on both sides. From a US perspective, as long as the system is alive, Moscow is not allowed to openly modernize and deploy its intermediate-range nuclear forces which might constitute a direct threat to its European allies. On the Russian side, maintaining the INF regime can be an important face-saver, as withdrawing from the treaty would definitely result in harsh criticism from the international community. Besides, upholding the system would keep the door open for the future globalization of the INF, which is an important strategic interest (and long-time demand) of Russian officials, who always have to keep an eye on their Eastern borders as a result of constantly developing Chinese missile capabilities.

Looking at NATO's nuclear strategy, the crisis in Ukraine definitely killed any momentum for a near-term withdrawal of the remaining US tactical nuclear weapons from Europe. But phasing out these weapons in the long run (i.e. at the end of their service life, which is ten years from now) may still be in the best interests of the Alliance as the withdrawal of these US weapons is considered to be a precondition to any kind of negotiations about the reduction of Russia's own robust tactical nuclear arsenal. Missile defense can similarly be a bargaining chip with Moscow, but in both cases, Washington has to pay attention to its European allies who attribute important symbolic value to these US commitments and would not welcome any unilateral steps which are not counterbalanced adequately by increased conventional assurances and not "rewarded" adequately by Russian concessions.

In light of the stalled relations between NATO and Russia, the Organization for Security and Co-operation in Europe (OSCE) can play an important role as an alternative forum for discussion where Russia is still sitting at the same table with the European NATO members. Reengaging on deadlocked arms control issues and restoring trust are the necessary first steps to rebuilding the European security architecture. Isolating Russia is not the right strategy, as many European states are dependent on Moscow economically. The United States also needs Russian cooperation in other fields of arms control, such as the Iran nuclear debate and the North Korean Six Party Talks. Pushing the policy of sanctions too hard and alienating Russia would definitely backfire in these areas and could lead to far more dramatic consequences in the long run.

Altogether, the ultimate goal should be a cooperative solution with careful diplomatic maneuvering in order to revitalize the nuclear non-proliferation regime and to reinstate stability in the Eastern parts of Europe. An essential part of both of these goals is the restoration of the value of Negative Security Assurances. The crisis in Ukraine seriously undermined the value and credibility of great power guarantees and negative security assurances as well. The assurances given in the framework of the 1994 Budapest Memorandum meant to ensure the sovereignty and territorial integrity of Ukraine, and included a pledge by the signatories to refrain from the use of force. In the field of nuclear arms control, the loss of confidence in great power promises and the general devaluation of these types of assurances is dangerous for two reasons: first, similar negative security assurances are the cornerstones of the NPT regime and the Nuclear Weapon Free Zone arrangements; and second, these assurances are expected to contribute to a final deal with North Korea and Iran as well. All these factors make it a global interest of everybody to maintain their value. In this regard, the only way to restore the credibility of these assurances is the involvement of a balanced mix of political, diplomatic, economic, and military steps to assist Ukraine, and punish Russia in such a way that it would be deterred from repeating its actions, but not alienated from future cooperation. These challenges will probably make arms control harder in the coming years, but that does not mean that the process has lost its viability in the current international security system.